

VS.SYSTEM™

VS SYSTEM TABLE TYPE

MODEL NO: MDS-TBL

MODEL NO: MDS-TBL-US

OPERATION MANUAL

Nintendo®

—WARNING—

This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

—WARNING—

Use of non-Nintendo parts or modifications of your Nintendo game circuitry may adversely affect the safety of your game, and may cause injury to your players.

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1. Game Specifications

- (1) Electrical Rating : AC120V \pm 10% 60Hz
- (2) Length of Power Cord : 5m
- (3) Power Consumption : 130W
- (4) Game Dimensions : 690(W) \times 970(D) \times 880(H)mm
Note: Height does not include the hinge on top of the game.
(Height Adjustment: 880, 910, 940, 970, 1000, 1030mm)
- (5) Weight : 95 Kgs
- (6) Number of Players : 1, 2, or 4 person(s)
Note: Depends upon Game Software.
- (7) Cash Box Capacity : Approximately 1600 pcs.(Quarter Size)
- (8) Accessories : Operation Manual : 1 copy
Key for Table Lock : 4 pcs.
Key for Cash Box : 2 pcs.
Fuse
5A \times 1, 3A(Slow Blow) \times 2
2.5A(Slow Blow) \times 2, 2A(Miget) \times 1
Bolt (M8 \times 15) with washer : 2 pcs.
Schematics

Note: Specifications are subject to change because of subsequent improvements in design.

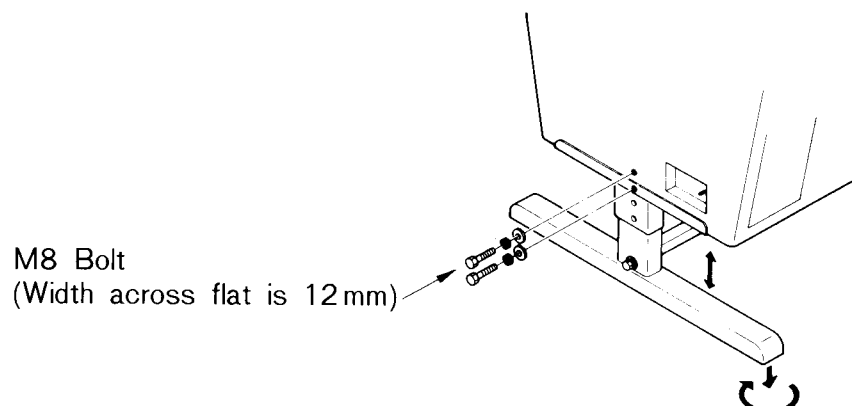
2. Game Installation

2-1 Installation Precautions

- 1) This game should be handled with extra care and caution. The glass and the electronic components may be damaged if the game is mishandled.
- 2) Use an AC 120V $\pm 10\%$ three terminal outlet as a power source. (If only a two terminal outlet is available, see section 2-3 for grounding instructions.) This game should not be used with an AC outlet circuit that also supplies a motor or a generator, as this may cause excessive voltage variations on the AC line.
- 3) Turn the power off before inserting or removing the P.C. Board and Connectors. Handle them carefully.
- 4) Do not touch IC, LSI, or other electronic parts on the P.C. Board. Since test equipment may damage the components, please contact a qualified service technician if problems exist.
- 5) When replacing a bad fuse, use a fuse with the same current and voltage rating.
- 6) This game should not be installed where extreme temperatures may exist. Keep away from heating appliances and direct sunshine.
- 7) Do not touch the inside of the video monitors, since extremely high voltages are present and can be dangerous. Please contact a qualified service technician if problems exist.
- 8) If this game is installed in a damp place it should be grounded to avoid injury from an electric shock.

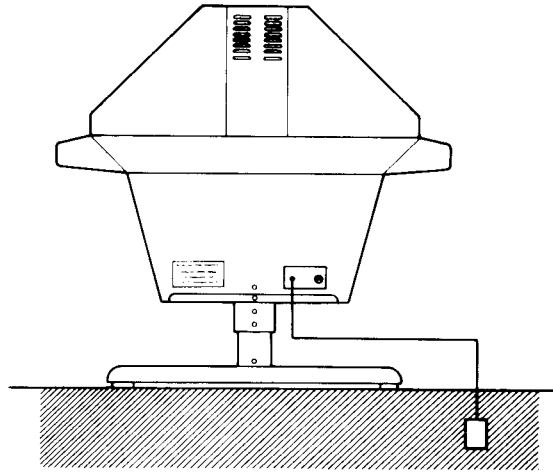
2-2 Adjustment of Table Height

The table height can be adjusted for 6 different positions (approximately 880, 910, 940, 970, 1000, 1030 mm from floor to top of game).



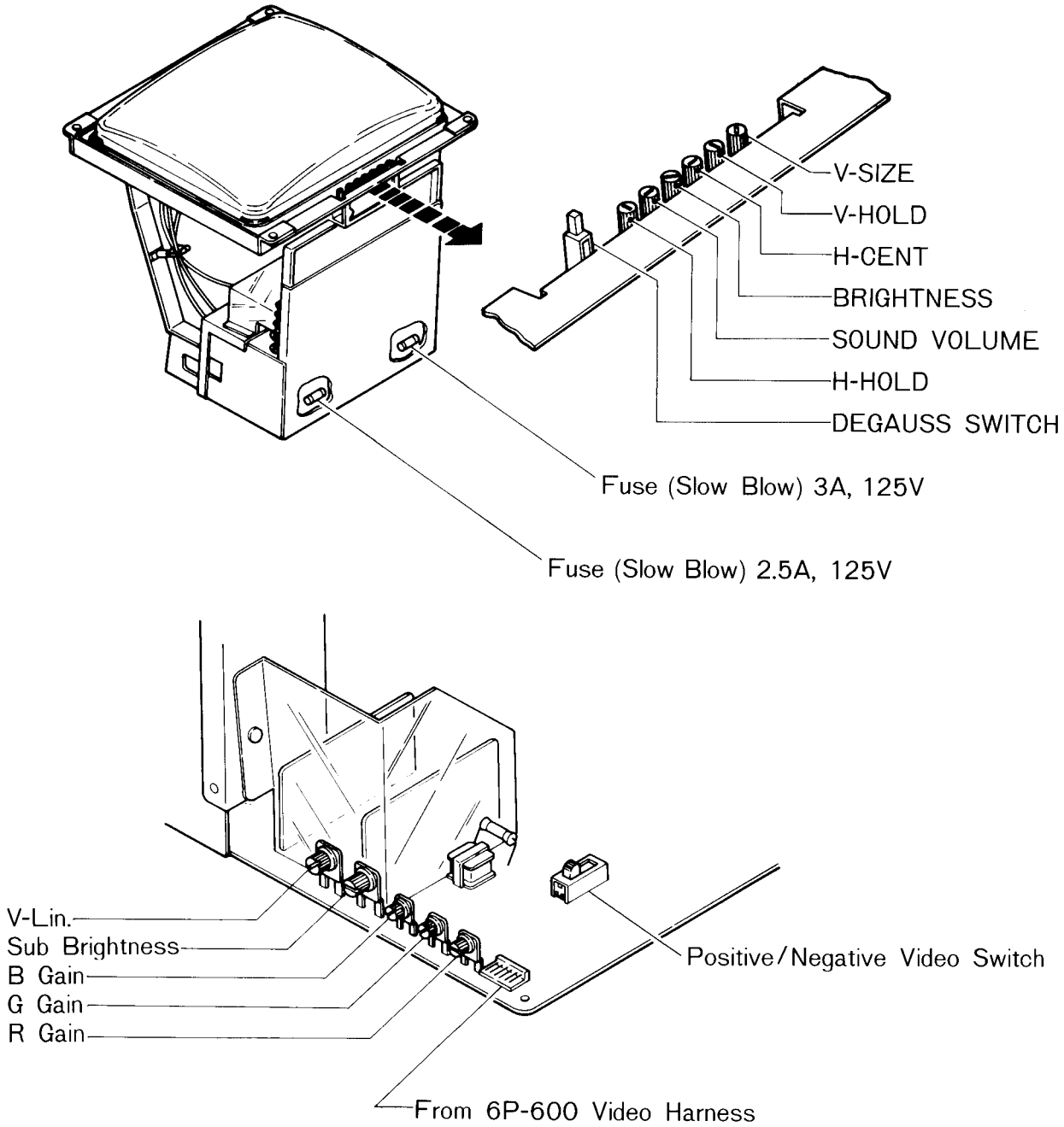
2-3 Grounding of Game

- 1) The Grounding wire should be connected to a grounding bar or a metal pipe which is firmly inserted into the ground.
- 2) Do not connect the grounding to a water pipe, because polyvinyl-chloride pipes are sometimes used in water lines, and the electronic continuity to the ground may be interrupted.
- 3) Absolutely do not connect the grounding wire to a gas pipe, as this can be extremely dangerous.



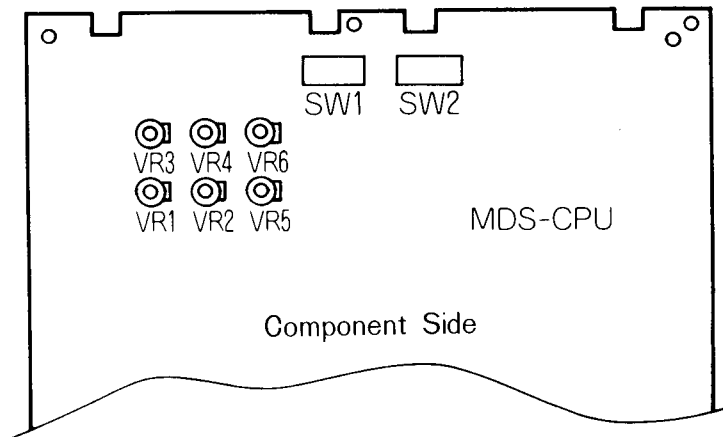
3. Game Adjustments

3-1 Video Monitor



Caution: Do not touch the inside of the video monitor, since extremely high voltages are present. Only a qualified service technician should attempt repairs if problems exist.

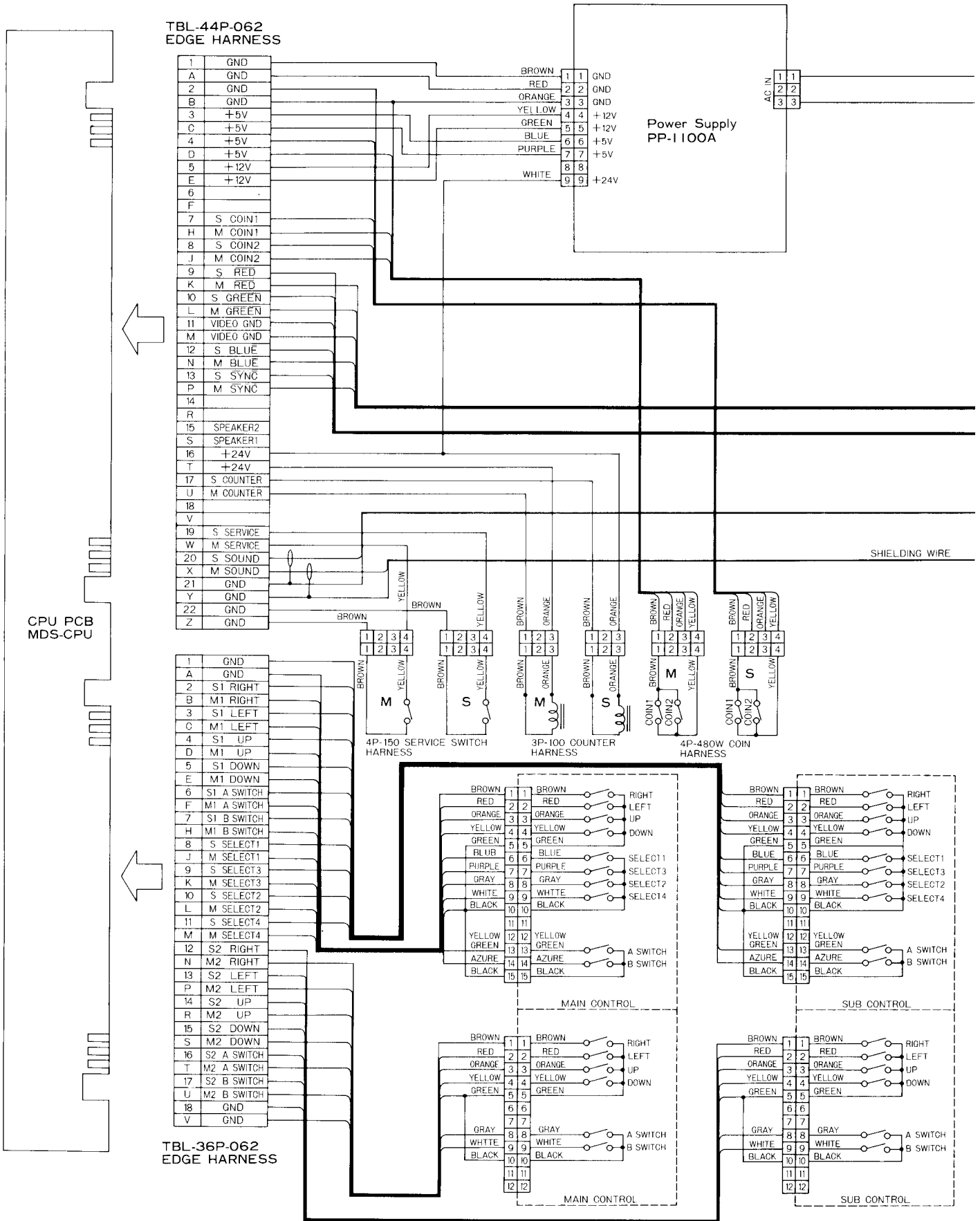
3-2 MDS P.C. Board

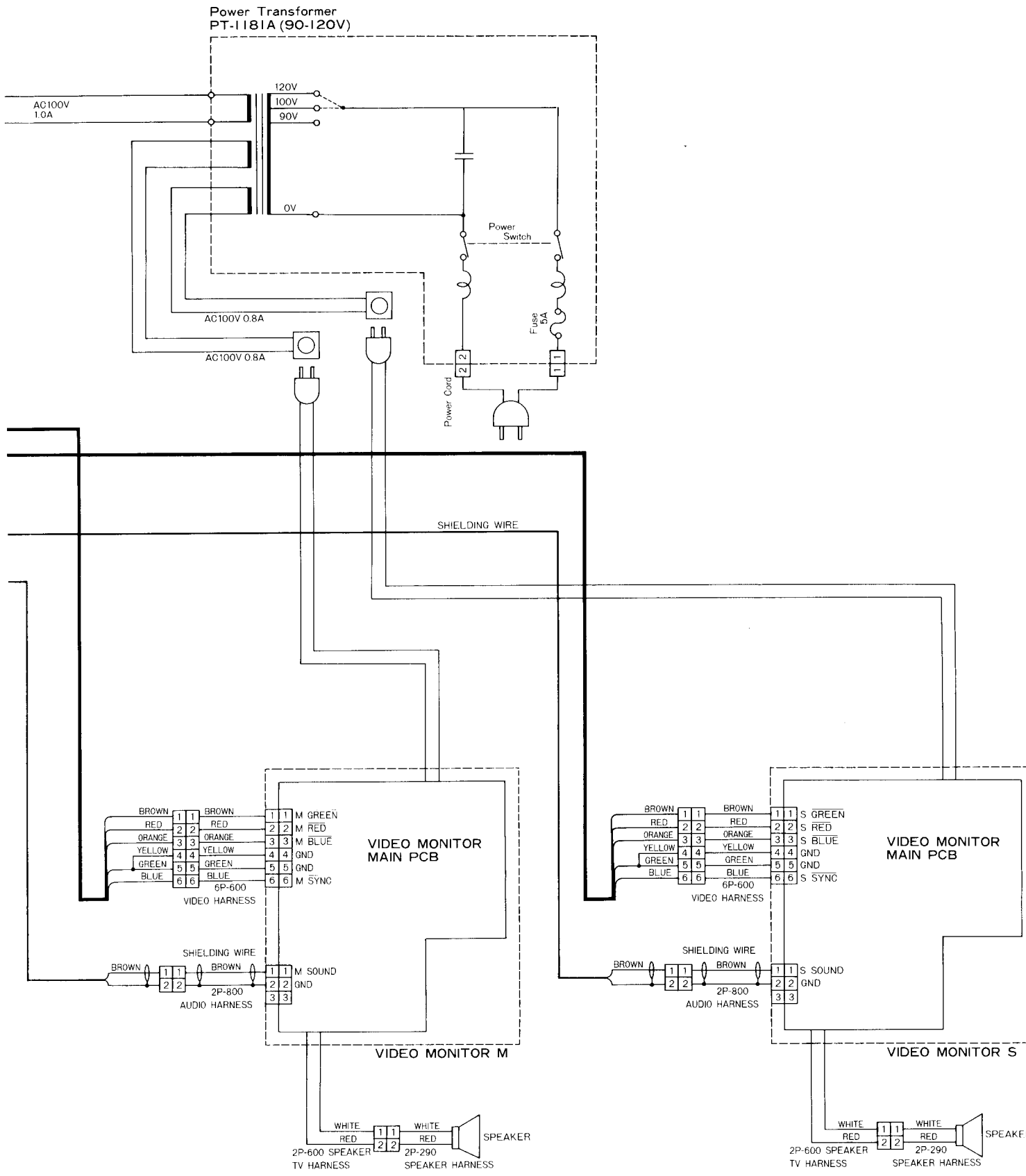


Cautions: 1) Since the Dip Switch settings (SW1, SW2) may be changed by new game software, refer to the new game instructions attached.

2) Do not touch the fixed variable resistors (VR1, VR2, VR3, VR4, VR5, and VR6), as they have already been preset and do not need adjustment.

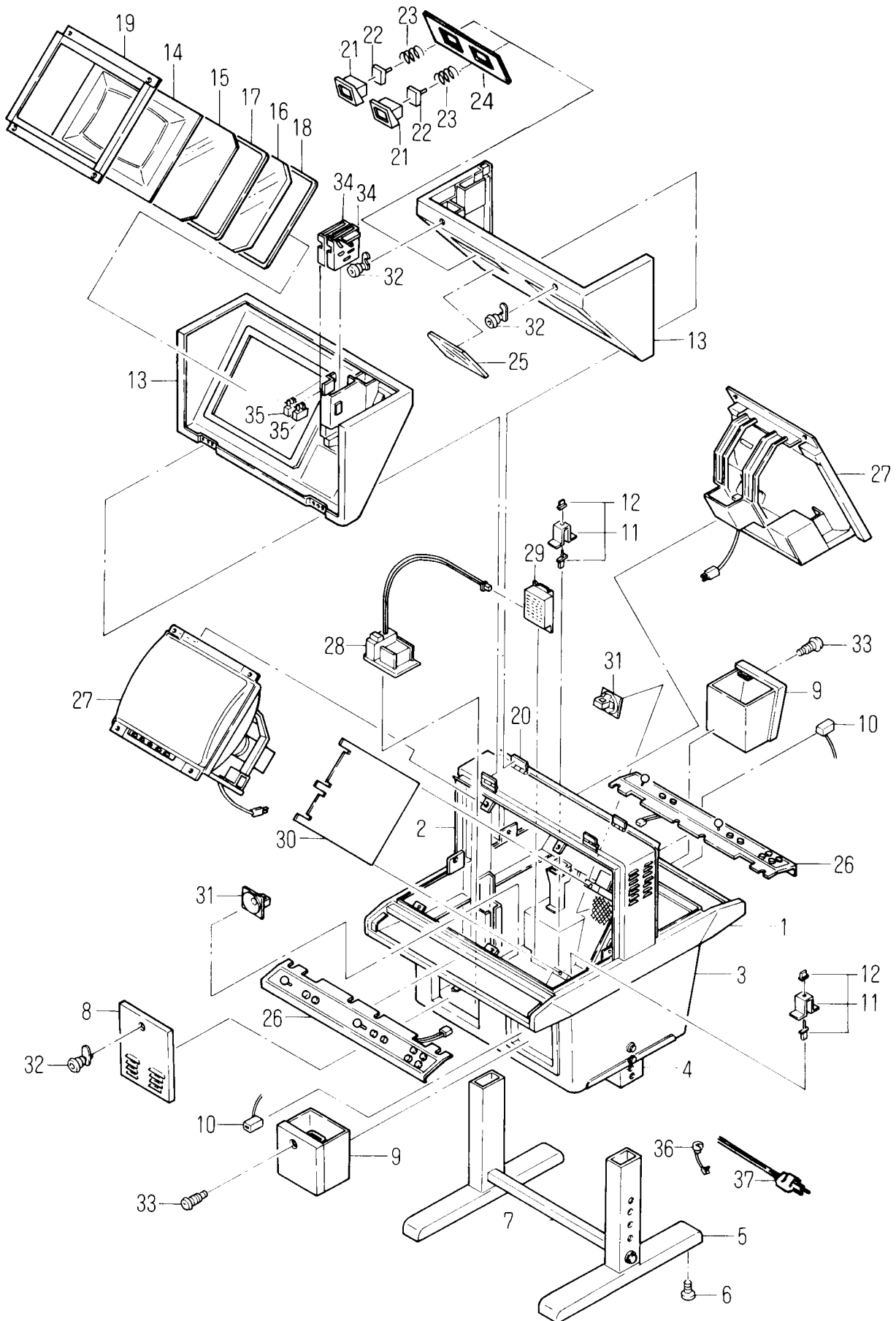
4. Wiring and Connection





5.Parts Information

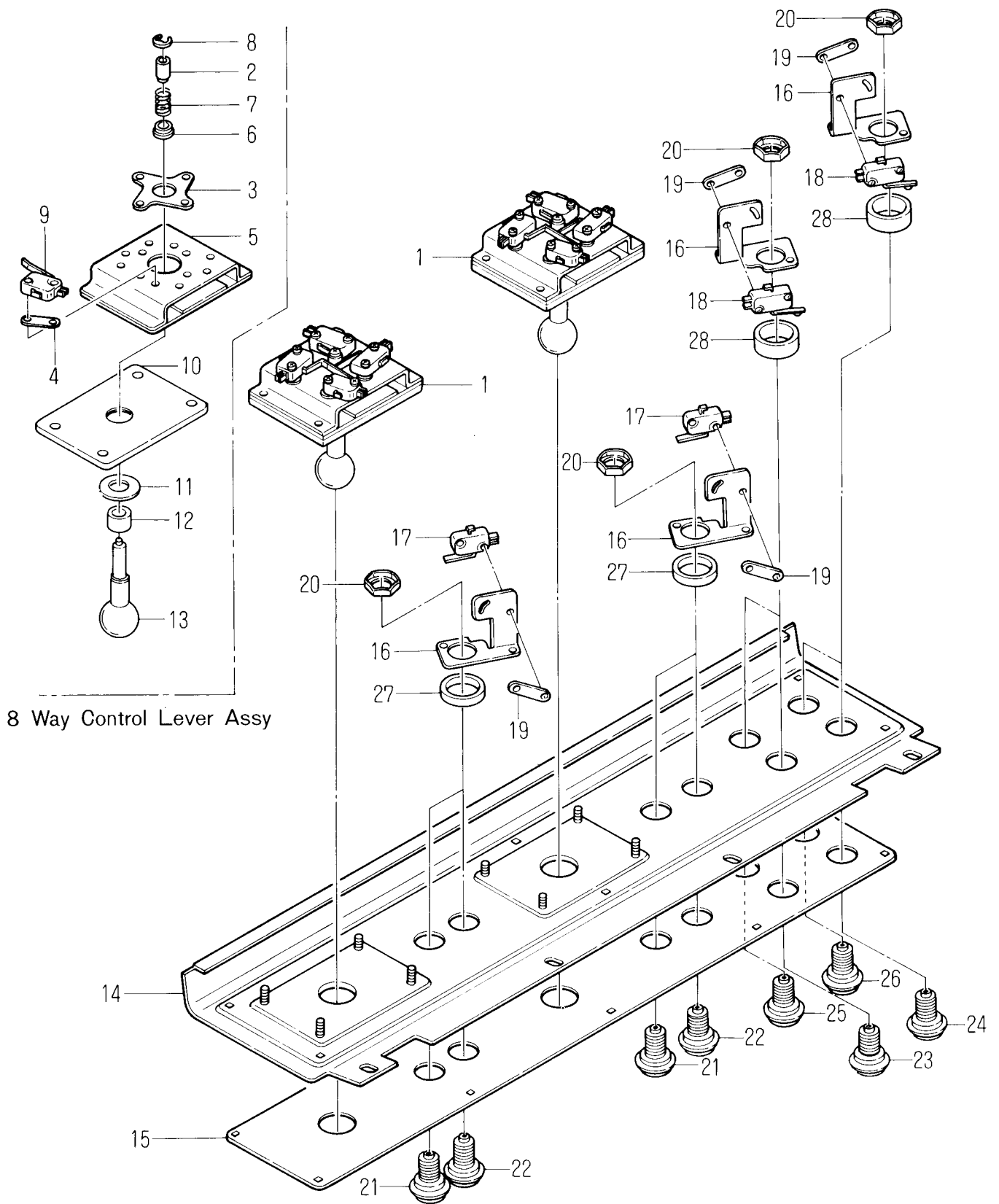
5-1 Cabinet Parts



5-1 Cabinet Parts

ITEM	PART No.	DESCRIPTION
1	MDST-10-11	MDS-TBL Upper Box
2	MDST-10-12	MDS-TBL Upper Cover
3	MDST-10-13	MDS-TBL Lower Box
4	MDST-10-14	MDS-TBL Leg Support Bracket
5	MDST-10-15	MDS-TBL Leg
6	DJRT- 81-06	Leg Adjuster
7	MDST-10-16	MDS-TBL Leg Support Bar
8	MDST-11-11	MDS-TBL Inspection Door
9	DJRT- 81-12	Cash Box
10	TKGU-01-11	Game Counter E607
11	DJRT- 81-31	Service Switch Frame
12	TKGU-01-33	Service Switch with Button
13	MDST-11-19	MDS-TBL Top Cover
14	MDST-13-12	Video Monitor Bezel (Black)
15	MDST-12-11	MDS-TBL Screen Filter
16	MDST-13-15	MDS-TBL Glass
17	DJRT- 82-09	Water Tight Packing 1000L×3T (Black)
18	MDST-12-12	Water Tight Packing 1000L×2T (Black)
19	MDST-11-21	Table Glass Retaining Frame
20	MDST-11-22	Top Cover Hinge
21	MDST-11-26	Coin Slot Bezel ADD-FT3
22	MDST-12-15	Coin Slot ADD-FT5 (For 25cent)
23	MDST-11-27	Coin Slot Spring 20
24	MDST-11-29	Coin Slot Panel W
25	MDST-12-16	Plastic Instruction Label Cover
26	MDST-10-19	062 Operation Panel Complete Assembly
27	MDST-33-01	Video Monitor XM-1801N
28	MDST-31-10	PT-1181A Power Transformer Unit
29	MDST-32-10	PP-1100A Power Supply Unit
30	MDST-21-11	MDS P.C. Board Assembly
31	MDST-34-11	Speaker 10CM (10PB938A)
32	TMAU-14-14	Lock K6510
33	MDST-14-11	Cash Box Door Lock CVZ-N (Magnetic Lock)
34	TMAU-14-18	Coin Selector AD-81P (For 25cent)
35	TMAT-34-11	Micro Switch ADD D2MC-5F1
36	TKGU-01-10	Strain Relief Bushing R6A (For Power Cord)
37	TKGU-01-08	Power Cord 5MUL

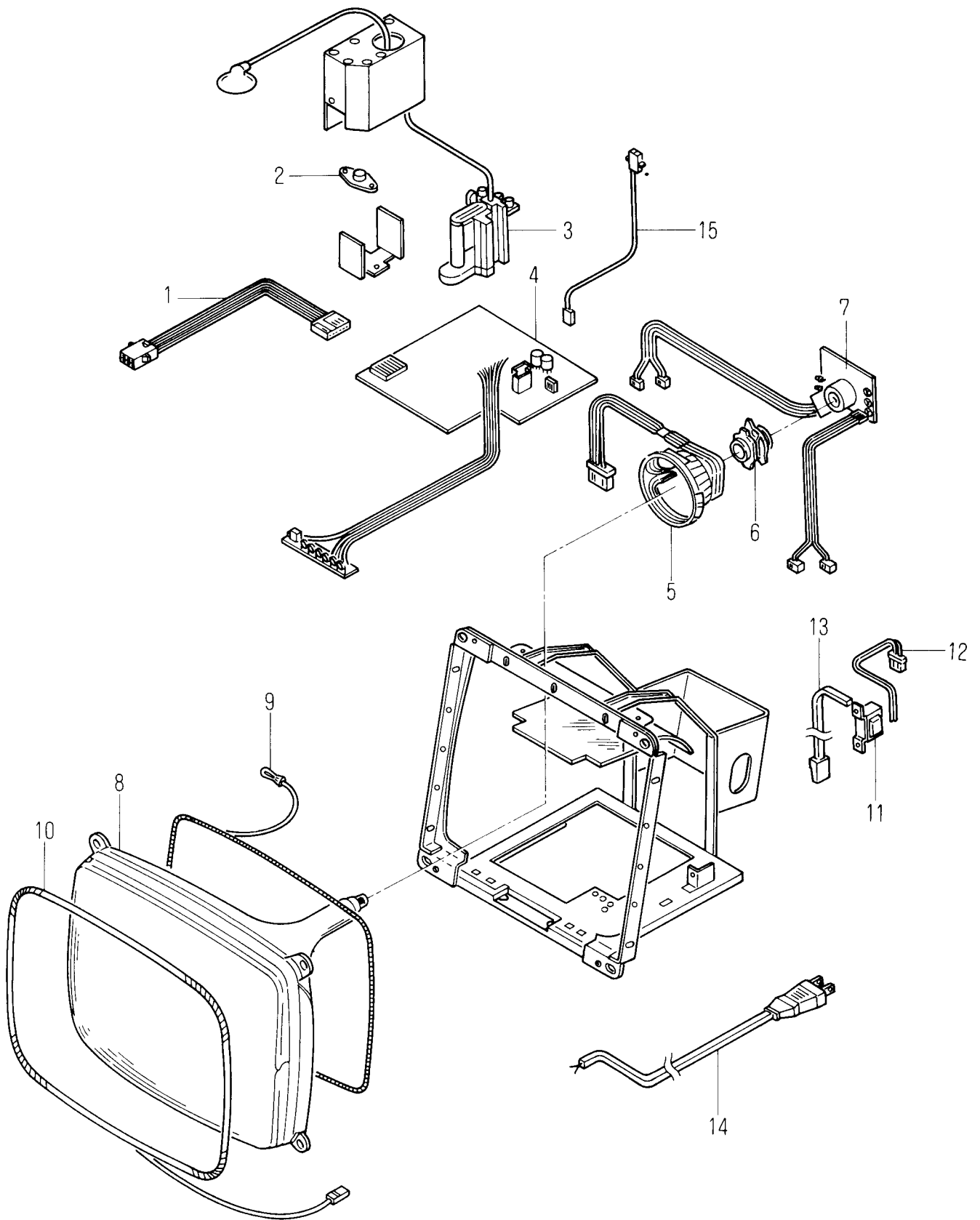
5-2 Operation Panel Assembly



5-2 062 Operation Panel Assembly

ITEM	PART No.	DESCRIPTION
1	MDST-14-12	A8 Control Lever Assembly
2	TKGU-23-21	Switch Collar
3	TNX- 23-18	8 Way Guide Plate
4	TKGU-23-27	Switch Spacer
5	TKGU-23-16	Bearing Bracket
6	TKGU-23-20	Spring Stopper
7	TKGU-23-22	Lever Spring
8	TKGU-23-23	E Ring 4
9	TKGU-23-13	Micro Switch VL12L (Bend)
10	TMAU-12-15	Lever Plate
11	TMAU-12-14	Control Knob Plate 28D
12	TMAU-12-16	Control Knob Collar 8L
13	TMAU-11-18	Control Knob with Shaft 80.5L
14	MDST-11-32	062 Operation Panel Base
15	MDST-11-31	062 Operation panel Only
16	TKGU-23-12	Switch Button Bracket
17	TMAU-34-18	Micro Switch VL12L
18	TKGU-23-10	Micro Switch VL105L2
19	TKGU-23-26	Nut Plate M3
20	TKGU-23-34	Pal Nut M16
21	MDST-12-17	Button Assembly (Crimson)
22	MDST-12-21	Button Assembly (Black)
23	MDST-12-24	Button Assembly (Light Blue)
24	MDST-12-27	Button Assembly (Green)
25	MDST-12-31	Button Assembly (Purple)
26	MDST-12-34	Button Assembly (Yellow)
27	TMAU-12-18	Collar 34 × 28 × 7H
28	TPPT- 23-33	Collar 34 × 28 × 15H

5-3 Video Monitor XM-1801N



5-3 Video Monitor XM-1801N

ITEM	PART No.	DESCRIPTION
1	TPPU- 93-07	6P-600 Video Harness (600mm)
2	MDST-33-16	Horizontal Output Transistor 2SD870
3	MDST-33-15	Flyback Transformer F1408
4	MDST-33-12	Video Monitor Main P.C. Board 1801N
5	MDST-33-17	Yoke Coil H1394
6	MDST-33-18	CG Purity Magnet F3006
7	MDST-33-13	Video Monitor CRT P.C. Board 1801N
8	MDST-33-11	Video Monitor Picture Tube
9	MDST-33-23	Grounding wire 1801N
10	MDST-33-14	Degaussing Coil G0205
11	MDST-33-20	Audio Output Transformer S0086
12	MDST-33-22	2P-100 Sound Harness (100mm)
13	MDST-33-21	2P-600 Speaker TV Harness (600mm)
14	MDST-33-19	AC Power Cord D0017
15	DJRT- 89-02	2P-800 Audio Harness (800mm)

5-4 Wiring Harness

PART No.	DESCRIPTION	See Page 6~7
MDST-41-13	TBL-44P-062 Edge Connecting Harness	
MDST-41-14	TBL-36P-062 Edge Connecting Harness	
DJRT- 89-03	3P-100 Counter Harness (100mm)	
DJRT- 89-04	4P-150 Service Switch Harness (150mm)	
MDST-41-16	4P-480 W Coin Harness (480mm)	
MDST-41-11	TBL-15P-062 Switch Harness	
MDST-41-12	TBL-12P-062 Switch Harness	

PART No.	DESCRIPTION	See Page 12
DJRT- 89-02	2P-800 Audio Harness (800mm)	
TPPU- 93-07	6P-600 Video Harness (600mm)	
MDST-33-21	2P-600 Speaker TV Harness (600mm)	
MDST-33-22	2P-100 Sound Harness (100mm)	

5-5 MDS P.C. BOARD ASSEMBLY

PART No.	DESCRIPTION (Reference Designations and Locations)
MDST-21-11	P.C. Board Assembly
MDST-21-12	2A03 Microprocessor (2J,8J)
MDST-21-13	HM6116 2k×8bit Static RAM, 250ns (1E, 6E)
MDST-21-14	MB8416-15 2k×8bit Static CMOS RAM 150ns (8L)
MDST-21-15	TC5533P-A 4k×8bit Static RAM (2C)
MDST-21-16	TC5533P-B 4k×8bit Static RAM (8C)
MDST-21-17	74LS00 Quad 2-input NAND LS TTL (4C, 5C)
MDST-21-18	74LS04 Hex Inverters LS TTL (1L, 2K, 4E, 5E)
MDST-21-19	74LS10 Tri 3-input NAND LS TTL (4D)
MDST-21-20	74LS32 Hex 2-input AND LS TTL (4A, 4B, 5A, 5B)
MDST-21-21	74LS74 Dual D-Flip Flops LS TTL (5D)
MDST-21-22	74LS123 Dual Retriggerable Single Shots LS TTL (1J)
MDST-21-23	74LS138 Dual 2 to 4 Demultiplexers LS TTL (1F, 6F)
MDST-21-24	74LS157 2 to 1 Data Selectors LS TTL (5J, 5K, 6J, 6K)
MDST-21-25	74LS165 8bit Shift register LS TTL (6M, 6N, 7P, 8P)
MDST-21-26	74LS240 Octal 3 State Bus Inverters LS TTL (7M, 7N, 8M, 8N)
MDST-21-27	74LS245 Octal 3 State Bus Tranceivers LS TTL (3K, 8K)
MDST-21-28	74LS373 Octal 3 State D-Latches LS TTL (2E, 8E)
MDST-21-29	74F04 Hex Inverters FAST TTL (5H)
MDST-21-30	4066 Quad Analog Switches C-MOS (2P, 4P)
MDST-21-31	LM324 Hex Operational Amplifiers (1P, 3P)
MDST-21-32	LM3900 Hex Operational Amplifiers (5N, 5R)
MDST-21-33	PST518A Reset IC (1K)
MDST-21-34	2SA933 Silicon PNP Transistor (Q3, Q7, Q13~Q16, Q19~Q22, Q26, Q27)
MDST-21-35	2SC1740 Silicon NPN Transistor (Q1, Q2, Q4~Q6, Q8, Q9, Q12, Q17, Q18, Q23~Q25)
MDST-21-36	2SD592 Silicon NPN Transistor (Q10, Q11)
MDST-21-37	1S953 Silicon Switching Diode (D1, D2, D5, D7, D9~D11)
MDST-21-38	W03B Silicon Diode (D3, D4, D6, D8)
MDST-21-39	27Ω 1/4W ±5% Resistor (R4)
MDST-21-40	33Ω 1/4W ±5% Resistor (R22, R30, R36, R38, R45~R47, R72, R89)
MDST-21-41	100Ω 1/4W ±5% Resistor (R79, R80, R95, R97)
MDST-21-42	330Ω 1/4W ±5% Resistor (R8, R20, R28, R29, R48, R49, R70, R71, R73, R91)
MDST-21-43	680Ω 1/4W ±5% Resistor (R119)
MDST-21-44	1KΩ 1/4W ±5% Resistor (R31, R32, R92, R93)
MDST-21-45	1.2KΩ 1/4W ±5% Resistor (R37, R43)
MDST-21-46	2.2KΩ 1/4W ±5% Resistor (R6, R11, R12, R14, R15, R23, R24, R27, R39~R42, R50, R51, R54, R55, R64, R65, R68, R69, R81, R87)
MDST-21-47	3.3KΩ 1/4W ±5% Resistor (R77)
MDST-21-48	4.7KΩ 1/4W ±5% Resistor (R13, R17, R25, R26, R52, R53, R66, R67)

PART No.	DESCRIPTION (Reference Designations and Locations)
MDST-21-49	10K Ω 1/4W \pm 5% Resistor (R3, R5, R7, R16, R18, R19, R21, R33, R56~R63, R75, R82, R83, R85, R86, R120)
MDST-21-50	12K Ω 1/4W \pm 5% Resistor (R76, R96, R98)
MDST-21-51	20K Ω 1/4W \pm 5% Resistor (R94, R99)
MDST-21-52	33K Ω 1/4W \pm 5% Resistor (R1, R2)
MDST-21-53	100K Ω 1/4W \pm 5% Resistor (R10, R35, R84, R103, R121)
MDST-21-54	150K Ω 1/4W \pm 5% Resistor (R74, R118)
MDST-21-55	360K Ω 1/4W \pm 5% Resistor (R107, R114)
MDST-21-56	750K Ω 1/4W \pm 5% Resistor (R101, R108, R109, R110, R115, R116)
MDST-21-57	1M Ω 1/4W \pm 5% Resistor (R102, R106, R112, R117)
MDST-21-58	1.8M Ω 1/4W \pm 5% Resistor (R90, R105)
MDST-21-59	2.2M Ω 1/4W \pm 5% Resistor (R81, R87, R100, R104)
MDST-21-60	1K Ω ×8 Series Resistor Array (RM1, RM2, RM5, RM8, RM11, RM14, RM17)
MDST-21-61	68 Ω ×4 Parallel Resistor Array (RM3, RM4, RM6, RM7, RM9, RM10, RM12, RM13, RM15, RM16)
MDST-21-62	33pF 50V Ceramic Disc Capacitor (C35, C91, C92)
MDST-21-63	68pF 50V Ceramic Disc Capacitor (C25, C86)
MDST-21-64	100pF 50V Ceramic Disc Capacitor (C38, C42, C43, C46)
MDST-21-65	220pF 50V Ceramic Disc Capacitor (C26~29, C34, C45)
MDST-21-66	0.01 μ F 50V Ceramic Disc Capacitor (C9, C10, C89, C90)
MDST-21-67	0.1 μ F 25V Ceramic Disc Capacitor (C100~C178)
MDST-21-68	0.2 μ F 12V Ceramic Disc Capacitor (C4, C12)
MDST-21-69	0.047 μ F 50V Film Capacitor (C37, C39, C40, C44)
MDST-21-70	3.3 μ F 16V Al. Electrolytic Capacitor (C15~C18, C31, C32)
MDST-21-71	10 μ F 16V Al. Electrolytic Capacitor (C3, C5, C6, C11, C13, C14, C19~C24, C30, C33, C36, C41, C47~C85)
MDST-21-72	47 μ F 16V Al. Electrolytic Capacitor (C2)
MDST-21-73	100 μ F 16V Al. Electrolytic Capacitor (C1)
MDST-21-74	100 μ F 25V Al. Electrolytic Capacitor (C8)
MDST-21-75	470 μ F 16V Al. Electrolytic Capacitor (C7, C87, C88)
MDST-21-76	500 Ω Variable Resistor. Red Cap (VR1, VR3)
MDST-21-77	500 Ω Variable Resistor. Green Cap (VR2, VR4)
MDST-21-78	500 Ω Variable Resistor. Blue Cap (VR5, VR6)
MDST-21-79	21.47727MHz Crystal (X1)
MDST-21-80	8 position dip switch (SW1, SW2)
MDST-21-81	28P IC socket (1A, 1B, 1C, 1D, 2A, 6A, 6B, 6C, 6D, 8A, 8B)
MDST-21-82	40P IC socket (2F, 2J, 8F, 8J)
MDST-21-83	Type 32-4 (UM3×2) Battery Case
MDST-21-84	Bolt with washer M2.6
MDST-21-85	Flat washer M2.6
MDST-21-86	Nut Plate M2.6
MDST-21-87	Dry Battery "AA" T18L Beaded tie

5-6 Power Supply Assy PP-1100A

PART No.	DESCRIPTION (Reference Designations and Locations)
MDST-32-10	Power Supply P.C. Board Unit
MDST-32-11	2SC2334 Transistor (Q1, Q4)
MDST-32-12	2SC3047 Transistor (Q2)
MDST-32-13	2SA1010 Transistor (Q3)
MDST-32-14	ERC80-004 Schottky Barrier Diode (D5)
MDST-32-15	RD13EB Zener Diode (D4)
MDST-32-16	ERB44-02 Fast Recovery Diode (D1)
MDST-32-17	ERB44-04 Fast Recovery Diode (D2)
MDST-32-18	ESAC82-004 Fast Recovery Diode (D3)
MDST-32-19	MZH-860 Hybrid IC (HIC1)
MDST-32-20	MZH-870 Hybrid IC (HIC2)
MDST-32-21	MB3759 Pulse Width Modulated Control Circuit (IC1, IC2)
MDST-32-22	SM-type 35V 220 μ F Electrolytic Capacitor (C1)
MDST-32-23	SM-type 16V 10 μ F Electrolytic Capacitor (C2, C3, C16)
MDST-32-24	ECES 2DV331S Electrolytic Capacitor (C8)
MDST-32-25	SM-type 16V 3300 μ F Electrolytic Capacitor (C13, C15)
MDST-32-26	SM-type 35V 33 μ F Electrolytic Capacitor (C14)
MDST-32-27	SM-type 16V 1000 μ F Electrolytic Capacitor (C20)
MDST-32-28	ST-type 16V 10 μ F Electrolytic Capacitor (C17)
MDST-32-29	50V 0.22 μ F Polyester Capacitor (C4)
MDST-32-30	50V 0.033 μ F Polyester Capacitor (C10)
MDST-32-31	50V 0.1 μ F Polyester Capacitor (C18)
MDST-32-32	50V 0.068 μ F Polyester Capacitor (C11)
MDST-32-33	50V 0.0047 μ F Polyester Capacitor (C12)
MDST-32-34	50V 0.0022 μ F Polyester Capacitor (C19)
MDST-32-35	400V 0.01 μ F Polyester Capacitor (C9)
MDST-32-36	125V 0.22 μ F Metallized Polyester Capacitor (C5)
MDST-32-37	400V 0.0022 μ F Ceramic Capacitor (C6, C7, C21)
MDST-32-38	RVF6P01-502 Variable Resistor (VR1)
MDST-32-39	RVF6P01-202 Variable Resistor (VR2)
MDST-32-40	RVF6P01-103 Variable Resistor (VR3)

PART No.	DESCRIPTION (Reference Designations and Locations)
MDST-32-41	100 Ω 5W \pm 5% Cement Resistor (R29)
MDST-32-42	0.1 Ω 2W \pm 5% Cement Resistor (R25)
MDST-32-43	0.2 Ω 2W \pm 5% Cement Resistor (R26)
MDST-32-44	75 Ω 3W \pm 5% Metal Oxide Resistor (R11)
MDST-32-45	33 Ω 2W \pm 5% Metal Oxide Resistor (R9)
MDST-32-46	47K Ω 1W \pm 5% Metal Oxide Resistor (R8)
MDST-32-47	15 Ω 1W \pm 5% Metal Oxide Resistor (R10)
MDST-32-48	100 Ω 1W \pm 5% Metal Oxide Resistor (R13)
MDST-32-49	150 Ω 1/4W \pm 5% Carbon Resistor (R1)
MDST-32-50	100 Ω 1/4W \pm 5% Carbon Resistor (R2)
MDST-32-51	15K Ω 1/4W \pm 5% Carbon Resistor (R3)
MDST-32-52	4.7K Ω 1/4W \pm 5% Carbon Resistor (R4, R19, R20, R22)
MDST-32-53	390 Ω 1/4W \pm 5% Carbon Resistor (R5, R7)
MDST-32-54	10K Ω 1/4W \pm 5% Carbon Resistor (R6, R15)
MDST-32-55	33 Ω 1/4W \pm 5% Carbon Resistor (R12)
MDST-32-56	820 Ω 1/4W \pm 5% Carbon Resistor (R14)
MDST-32-57	1.8K Ω 1/4W \pm 5% Carbon Resistor (R17)
MDST-32-58	100K Ω 1/4W \pm 5% Carbon Resistor (R18)
MDST-32-59	560 Ω 1/4W \pm 5% Carbon Resistor (R21)
MDST-32-60	33K Ω 1/4W \pm 5% Carbon Resistor (R23)
MDST-32-61	220 Ω 1/4W \pm 5% Carbon Resistor (R24)
MDST-32-62	330 Ω 1/4W \pm 5% Carbon Resistor (R27)
MDST-32-63	62 Ω 1/4W \pm 5% Carbon Resistor (R28)
MDST-32-64	1.5K Ω 1/4W \pm 5% Carbon Resistor (R16)
MDST-32-65	W04M Rectifier (REC1)
MDST-32-66	DR 8 \times 11, L5 Choke Coil (L5)
MDST-32-67	DR 22 \times 14, H7C2 Choke Coil (L3)
MDST-32-68	SF-T12-50 Toroidal Choke Coil (L4)
MDST-32-69	SF-T10-40 Toroidal Choke Coil (L1)
MDST-32-70	Switching Transformer (T1)
MDST-32-71	SC02-15E Line Filter (L2)
MDST-32-72	AC25V 2A 20mm ϕ 5.3 Miget Fuse (F1)

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